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PHILADELPHIA INQUIRER
1 MAY 1983

As an inventor, Paul Crafton refused to share his ideas

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In the years before he began a desperate charade to raise money, assuming 34 identities and teaching at seven colleges, Paul A. Crafton incorporated at least 17 companies in a seemingly legitimate but wholly unsuccessful attempt to market his inventions.

Using his own name and his own patented ideas, Crafton, through partners and companies he courted from Florida to Canada to Saudi Arabia, managed to attract investors who poured hundreds of thousands of dollars into his plans.

Of his seven inventions — some of which were touted as concepts that could revolutionize the motel, mining, utility and banking industries — at least two nearly became reality. One was approved for manufacture — a step that could have ended the financial strain that Crafton has told many he faced because of his disabled daughter and the medical treatment she required.

But always, former partners say, Crafton would falter at the last minute, hesitant — almost paranoid, some said — about providing full details of his inventions. Investors, already having taken a loss, would back away. And Crafton's ideas, relegated to the back burners of government and industry in the United States, Canada, Saudi Arabia and other countries, would remain just ideas.

"He was brilliant and articulate," recalled Miami lawyer Norman Klein, who represented one of Crafton's corporations. Klein said Crafton's inventions were "exciting" and "far ahead of their time." But, he added, "Every time we got close to a deal, it always fell through. I think he was over his head on the business end of it."

Other former partners painted a similar picture of Crafton as a bright, logical, unemotional man, whose braininess led him to the precipice of wealth but whose arrogance, greed and paranoia made him teeter and fall back into the oblivion of his job as an engineering professor at George Washington University.

He began incorporating companies in Florida to develop and market his ideas as early as the mid-1960s, setting up a board of directors that included Klein, a brother-in-law who lives in the Philadelphia area, and Crafton's wife, Sonia, who graduated from Temple University and who holds a master's degree from George Washington University.

Later, he persuaded more investors to become directors and primary stockholders in the companies, 17 of which were

incorporated in Maryland but have since been annulled because of unpaid taxes, according to documents in the corporate records office of the Maryland Department of Assessment and Taxation in Baltimore.

Through the corporations, he set up a laboratory in Oxon Hill, Md., employing several engineers, and began traveling extensively, contacting prestigious lawyers, consultants and financiers to seek the money to put his ideas into practice.

In Florida, wealthy investors gambled and lost between \$25,000 and \$50,000 on his ideas for an automatic meter-reading system and several other inventions. In Canada, investors lost more than \$200,000 on the meter system, which, like his other inventions, never came to fruition.

Crafton, too, lost money. He made more than \$49,000 in non-interest loans to one of his companies, according to documents. In

a letter to Klein in 1971, he complained that corporate money troubles had been leading to the demise of his Oxon Hill laboratory. Eventually it did close, and he and his technicians resorted to conducting research in the basements of their homes.

Although Crafton appears to have failed to market his inventions, former colleagues agree that his ideas held merit, and similar concepts are used at hotels and banks in several countries.

His idea for a hotel security system, which involved a card inserted into a computer-coded, changeable lock — one of seven inventions he filed with the U.S. Patent Office between 1951 and 1974 — is being used in motels in the United States and Europe. Some former colleagues say this use may be grounds for a patent-infringement suit.

An omnidirectional drilling system, for which he received a patent in 1976, piqued the interest of the Saudi Arabian government, but a proposed deal fell through when Crafton failed to agree to the government's terms.

And then there was UMRARS.

The Utility Meter Remote Automatic Reading System — described as a multibillion dollar concept that could change the face of the utility industry — is viewed as Crafton's greatest idea. Among other functions, it would allow electric utility companies to use their own power lines to carry data on power use to utility offices, eliminating the need

for meter readers and giving the utilities the ability to selectively cut or curtail power to customers.

UMRARS, too, failed to become a reality — though one Canadian consultant is still attempting to market the idea — after Crafton, according to his former partners, botched at least three potential deals.

Crafton's attempts to market his inventions started in 1967, two years after his daughter, Laura Melanie, was born with cerebral palsy and while Crafton was already holding two jobs, one as a professor at George Washington and the other at the Naval Research Laboratory in Washington, where he worked under top-security clearance until 1969 and where he helped design a ship and aircraft security system known as Identification Friend or Foe.

While working for the Navy in 1966, Crafton received his first patent, for a random motion generator, a device described as useful in producing a pattern of code signals that could be "very difficult to compromise," or decipher.

In later years, he was to receive six more patents in the United States. He also filed for patents in Argentina, Australia, Belgium, Brazil, Canada, France, Germany, Great Britain, Israel, Italy, Japan, Mexico, the Netherlands, South Africa, Spain and Sweden. But, except for the prototypes in his lab, apparently none of the devices described in the patents was ever built.

His subsequent failures to market his devices preceded, and perhaps prompted, an academic masquerade that began in 1979 and that saw Crafton teach at seven colleges across the Northeast and apply at almost two dozen more, all under assumed names.

That deception ended March 21, when Crafton, a longtime member and former chairman of the engineering administration faculty at George Washington, was arrested on charges related to teaching under assumed names at two Pennsylvania colleges.

The mystery surrounding the bearded professor from Potomac, Md., born with the name Paul Arthur Cohen to immigrant parents in Brooklyn 59 years ago, grew more curious after that.

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